

Claims

[c1] What is claimed is:

1.A photomask comprising:

a transparent substrate;

a mask pattern positioned on a surface of the transparent substrate;

a transparent electrostatic discharge (ESD) ring positioned on the surface of the transparent substrate and surrounding the mask pattern;

a pellicle covering over the mask pattern; and

a mounting adhesive positioned between the pellicle and the transparent electrostatic discharge ring for sticking the pellicle on the transparent electrostatic discharge ring;

wherein the transparent electrostatic discharge ring is utilized to examine a binding condition between the pellicle and the transparent substrate and to suppress an electrostatic discharge.

[c2] 2.The photomask of claim 1 wherein the pellicle comprises:

a transparent film; and

a frame having a first surface adhering to the transpar-

ent film and a second surface adhering to the mounting adhesive.

- [c3] 3.The photomask of claim 2 wherein the transparent film comprises nitrocellulose (NC) or fluoropolymer.
- [c4] 4.The photomask of claim 2 wherein the frame is an aluminum frame that is treated with anodic treatment for preventing the aluminum frame from reflecting light beams.
- [c5] 5.The photomask of claim 1 further comprising a first opaque chromium film positioned on the surface of the transparent substrate and located between the mask pattern and the electrostatic discharge ring.
- [c6] 6.The photomask of claim 5 further comprising a second opaque chromium film positioned on the surface of the transparent substrate and surrounding the electrostatic discharge ring.
- [c7] 7.A photomask comprising:
a substrate, a surface of the substrate having a mask pattern region and a ring-shaped transparent region surrounding the mask pattern region; and
a pellicle adhering to the ring-shaped transparent region and covering over the mask pattern region;
wherein the ring-shaped transparent region is utilized to

examine a binding condition between the pellicle and the substrate.

- [c8] 8.The photomask of claim 7 wherein the ring-shaped transparent region is an electrostatic discharge ring utilized for suppressing an electrostatic discharge.
- [c9] 9.The photomask of claim 7 wherein the pellicle comprises:
 - a frame having a first surface and a second surface;
 - a transparent film positioned on the first surface of the frame; and
 - a mounting adhesive positioned on the second surface of the frame for sticking the pellicle on the ring-shaped transparent region.
- [c10] 10.The photomask of claim 9 wherein the transparent film comprises nitrocellulose or fluoropolymer.
- [c11] 11.The photomask of claim 9 wherein the frame is an aluminum frame that is treated with anodic treatment for preventing the aluminum frame from reflecting light beams.
- [c12] 12.The photomask of claim 7 wherein the surface of the substrate further comprises an inner region located between the mask pattern region and the ring-shaped transparent region.

- [c13] 13.The photomask of claim 12 wherein the surface of the substrate further comprises an outer region surrounding the ring-shaped transparent region.
- [c14] 14.The photomask of claim 13 further comprising a first opaque chromium film positioned on the inner region and a second opaque chromium film positioned on the outer region.
- [c15] 15.The photomask of claim 7 further comprising a mask pattern positioned on the mask pattern region.